Distribution of Exfolaitive Toxin A and B Genes in Staphylococcus aureus Isolated from Clinical Specimens

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Background & Objectives: Some of *Staphylococcus aureus* strains produced difference type of exfoliative toxins. Exfoliative toxins (also known as "epidermolytic" toxins) are particularly interesting virulence factors of S. aureus. Production of exfoliative toxin by these strains of S. aureus can be determined using a range of currently available diagnostic tests, including PCR. These tests were carried out in researching laboratories. In this study we are detecting ETs A&B in *Staphylococcus aureus* isolated from clinical speicmens Baqiyatallah Medical University of Tehran.The principal aim of this study is evaluation abundance of ETs A & B.

Methods: 200 strains of *S. aureus* isolated from clinical samples were subjected to PCR. The strains were maintained on tryptic soy agar plates and according to the methods of genomic DNA extraction kit (bioneer Co. Korea) DNA extraction was performed. We were designed ETA and ETB primers and evaluated by blast software.

Results: After detection of eta and etb genes by PCR methods, the products were analyzed on agerose gel electrophoresis. According to SPSS software and statistics table, ETA -producing strains have more prevalent than those expressing ETB.

Conclusion: Our results have revealed that eta genes were more prevalent than the etb genes among *S. aureus* isolates. It's seems then probably presence of eta&etb genes have significant relative with clinical samples. Detection Ets have important uses, on their molecular mechanisms and epidemiology and true nature of the superantigenic properties of Ets and their roles and relationship to their pathogenesis remain.

Keywords: Exfoliative ToxinA&B; *S. aureus*; PCR